

**REMARKS**

Entry of the foregoing, re-examination and reconsideration of the subject matter identified in caption, as amended, pursuant to and consistent with 37 C.F.R. § 1.111, and in light of the remarks which follow, are respectfully requested.

Claims 2 and 32 have been amended to correct typographical errors, by replacing "Fe<sub>3</sub>O<sub>4</sub>" and " $\gamma$ -Fe<sub>2</sub>O<sub>3</sub>" with --Fe<sub>3</sub>O<sub>4</sub>-- and -- $\gamma$ -Fe<sub>2</sub>O<sub>3</sub>--, respectively. Claims 3-9, 11-16, 18-20, 22-30, 33-34, 36, 38, 41-46, 48-52, 54-61, 65-72 and 75-78 were previously canceled. No new matter has been added.

Upon entry of the Amendment, claims 1, 2, 10, 17, 21, 31, 32, 35, 37, 39, 40, 47, 53, 62-64, 73, 74 and 79-81 will be all the claims pending in the application.

**I. Drawings**

The Office Action Summary is silent regarding the drawings (6 sheets) filed with the application on December 13, 2005. The Examiner is respectfully requested to acknowledge acceptance of the drawings in the next official communication.

**II. Response to Rejection under 35 U.S.C. § 102(b)**

Claims 1, 2 and 17 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent Application Publication No. 2002/0062834 to Snaidr et al. Applicants respectfully traverse the rejection for the following reasons.

Independent claim 1 recites a smoking article comprising: a tobacco rod having a wrapper formed around the tobacco rod, the wrapper including a patterned deposit on at least a portion of one surface of the wrapper, wherein the patterned deposit comprises catalyst particles capable of catalyzing, oxidizing and/or reducing the conversion of a constituent gas component in the mainstream and/or sidestream smoke of the smoking article.

Under 35 U.S.C. § 102, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. M.P.E.P. § 2131, citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Snaidr et al. discloses a low sidestream smoke cigarette comprising a tobacco rod and a combustible treatment paper having a sidestream composition comprising an oxygen storage and donor metal oxide oxidation catalyst in combination with a non-combustible finely divided porous particulate adjunct for the catalyst (Abstract). Snaidr et al. also discloses that the oxygen storage and donor metal oxide oxidation catalyst is transitional metal oxides, rare earth metal oxides, and mixtures thereof (paragraph [0053]) and that the catalyst powders have an average particle size of about 1.0 to 5  $\mu\text{m}$  (paragraph [0056]). Further, Snaidr et al. discloses that the adjunct includes porous clays, porous carbon fibers and particulates, metal oxides, and molecular sieves (paragraphs [0039] and [0040]).

In addition, Snaidr et al. discloses that the catalyst composition can be sprayed onto either or both sides of the cigarette paper and absorbed into the paper; extruded as a film to the surface of the paper; coated by a roller applicator; incorporated during paper making process; or sandwiched between paper layers to form a double cigarette paper wrap (paragraphs [0066]-[0068]; Figs. 1-5). However, Snaidr et al. does not disclose or suggest a patterned deposit of the catalyst on a cigarette paper, as recited in present claim 1. As such, Snaidr et al. does not anticipate present claims 1, 2 and 17.

In view of the foregoing, Applicants respectfully submit that the present claims are novel over Snaidr et al. and thus the rejection should be withdrawn.

### **III. Response to Rejections under 35 U.S.C. § 103(a)**

a. Claim 10 was rejected under 35 U.S.C. § 103(a) as allegedly obvious over Snaidr et al. in view of U.S. Patent No. 3,636,027 to Smith. Applicants respectfully traverse the rejection for the reasons set forth above in Section II and the following additional reasons.

Smith is cited for disclosure of a catalyst system where a catalyst is supported on a carrier, such as calcium carbonate, to increase its effective surface. The Office Action asserts that "it would have been obvious to support the catalyst of Snaidr et al. on calcium carbonate to increase its effective surface."

Under 35 U.S.C. §103(a), the Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. M.P.E.P. § 2142. As set forth in M.P.E.P. § 2143, one requirement for establishing a *prima facie* case of obviousness is that the combination of references must teach or suggest all the claim features. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Additionally, the Patent Office must provide "some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness" and not "mere conclusory statements." *KSR Int'l Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (U.S. 2007) (quoting *In re Kahn*, 441 F.3d 977, 988, (Fed. Cir. 2006)). Rationales include combining prior art elements according to known methods to yield predictable results, simple substitution of one known element for another to obtain predictable results, use of a known technique to improve similar devices in the same way, applying a known technique to a known device ready for improvement to yield predictable results, choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success, known work in one field that prompts variations of it for use in either the same field or a different field based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill and some teaching,

suggestion or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention. The Official Action must also show that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective function. M.P.E.P. § 2141.III.

Snaidr et al. discloses that the sidestream smoke treatment composition comprising an oxygen storage and donor metal oxide oxidation catalyst in combination with a non-combustible finely divided porous particulate adjunct for the catalyst provides "a very surprising degree of sidestream smoke control without affecting the taste of the cigarette" (paragraph [0037]). As to the adjunct, Snaidr et al. describes that "the adjunct may be any suitable essentially non-combustible, finely divided porous particulate material which does not affect the flavour and taste of the mainstream smoke and does not give off any undesirable odours in the sidestream vapours.... The porous adjunct has a high surface area ... must be porous" (paragraph [0038]). The Office Action has failed to show that the calcium carbonate described in Smith satisfies all the requirements for the adjunct called for in Snaidr et al., or substitution of Snaidr's adjunct with the calcium carbonate described in Smith would provide predictable results in controlling sidestream smoke without affecting the taste of the cigarette. As such, the Office Action has failed to establish a *prima facie* case of obviousness of claim 10 over Snaidr et al. in view of Smith.

In view of the foregoing, Applicants respectfully submit that claim 10 is patentable over Snaidr et al. in view of Smith., and thus the rejection should be withdrawn.

**b.** Claim 21 was rejected under 35 U.S.C. § 103(a) as allegedly obvious over Snaidr et al. Applicants respectfully traverse the rejection for the reasons set forth above in Section II and the following additional reasons.

Snайдр et al. is cited as disclosing loading catalyst to the wrapper from one end to the other end (Fig. 1). The Office Action asserts that "it would have been obvious to load the catalyst on one end of the wrapper and then the catalyst on the other end of the wrapper because selection of any order of performing process steps is *prima facie* obvious in the absence of new or unexpected results," citing *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946).

MPEP 2144.04.IV.C, which cites *In re Burhans*, relates to "Changes in Sequence of Adding Ingredients." That is, mere change in sequence of adding ingredients is *prima facie* obvious in the absence of new or unexpected results.

The present case differs from *In re Burhans* in that it does not involve mere changes in sequence of adding catalyst described in Snайдр et al. Particularly, Snайдр et al. discloses loading catalyst to a cigarette paper by spraying a composition onto either side or both sides of the cigarette paper (paragraph [0066] and Fig. 1). Snайдр et al. does not disclose any steps using compositions with different loadings of catalyst for spraying. Therefore, mere changes in sequence of loading catalyst described in Snайдр et al. would not result in the subject matter recited in present claim 21. Further, the Office Action has failed to provide any reason for modifying Snайдр et al. by spraying different loadings of catalyst at both ends of the cigarette paper. As such, the Office Action has failed to establish a *prima facie* case of obviousness of claim 21 over Snайдр et al.

In view of the foregoing, Applicants respectfully submit that claim 21 is patentable over Snайдр et al. and thus the rejection should be withdrawn.

#### **IV. Conclusion**

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order and such action is earnestly solicited. If there are any questions

concerning this paper or the application in general, the Examiner is invited to telephone the undersigned at his earliest convenience.

Respectfully submitted,

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Date: January 20, 2010

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